

Applicant : Nobuyuki Sugimura et al.

For : ACCUMULATOR USING INTERNAL AND EXTERNAL THREADS

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In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (original) An accumulator having a bladder-containing container main body, a supply/discharge tube provided at one end of the container main body, and an internal thread provided at the other end of the container main body and engaged with a closure member,

characterized in that the internal thread is a reverse-buttress internal thread in which a clearance flank and a pressure flank of a buttress internal thread are reversed, or the internal thread is an internal thread in which an included angle is 90 degrees having an equal angle of inclination of the two flanks.

2. (original) An accumulator according to Claim 1, wherein the reverse-buttress internal thread is formed by putting a buttress internal thread in a standard arranged state having a clearance flank and a pressure flank to a reversely arranged state, and thereby turning the clearance flank into a load-receiving reverse pressure flank with the pressure flank turned into a reverse clearance flank, wherein the reverse pressure flank expands outward when the reverse pressure flank receives a pressing force.

3. (original) An accumulator according to Claim 1, wherein the reverse-buttress internal thread is a thread in which a reverse clearance flank and a load-receiving reverse pressure flank are formed by reversing the shape of the pressure flank of the buttress thread and the shape of the clearance flank thereof, wherein the reverse pressure flank expands outward when the reverse pressure flank receives a pressing force.

4. (original) An accumulator according to Claim 1, wherein the reverse-buttress internal thread is a thread formed by setting an angle of inclination of a clearance flank of a buttress internal thread to that of a load-receiving reverse pressure flank with the clearance flank formed into a reverse clearance flank, wherein the angle of inclination of the reverse clearance

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flank is set to be smaller than that of the reverse pressure flank, and the reverse pressure flank expands outward when the reverse pressure flank receives a pressing force.

5. (original) An accumulator according to Claim 1, wherein the angle of inclination of the reverse pressure flank is 30° to 60°.

6. (original) An accumulator according to Claim 1, wherein the reverse pressure flank and reverse clearance flank continue to each other via a bottom of a valley of the internal thread, wherein the radius of the bottom of the valley of the internal thread being in the range of 1/10 to 1/3 of the pitch of the thread.

7. (original) An accumulator according to Claim 1, wherein the angle of inclination of the reverse clearance flank is 0° to 15°.

8. (original) An accumulator according to Claim 1, wherein the reverse-butress internal thread is provided with a stepped portion and a tapered portion.

9. (currently amended) An internal thread having a clearance flank and a pressure flank, characterized in that the internal thread is an internal thread having has an included angle of 90 degrees in which an angle of inclination of the two flanks is equal to each other.

10. (original) An internal thread according to Claim 9, wherein the internal thread is provided with a stepped portion and a tapered portion.

11. (new) An accumulator comprising:
a bladder-containing container main body;
a supply/discharge tube provided at a first end of the container main body;
an internal thread provided at a second end of the container main body; and
a closure member engaged with the internal thread;

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wherein the internal thread is a reverse-buttress internal thread whereby each thread of the internal thread includes a clearance flank facing the first end and a pressure flank facing the second end, the clearance flank having a clearance angle of inclination of about 0° to 15° and the pressure flank having a pressure angle of inclination of about 30° to 60°.

12. (new) An accumulator according to claim 11, wherein:

the pressure flank and clearance flank of adjacent threads continue to each other via a bottom of a valley of the internal thread; and

a radius of the bottom of the valley of the internal thread is approximately 1/10 to 1/3 of a pitch of the threads.

13. (new) An accumulator according to claim 11, wherein:

the reverse-buttress internal thread is provided with a stepped portion and a tapered portion.

14. (new) An accumulator comprising:

a bladder-containing container main body;

a supply/discharge tube provided at a first end of the container main body;

an internal thread provided at a second end of the container main body; and

a closure member engaged with the internal thread;

wherein each thread of the internal thread includes a first flank facing the first end and a second flank facing the second end, the first flank and the second flank of at least one thread of the internal thread meeting at an angle of approximately 90 degrees, with each flank having an equal angle of inclination.

15. (new) An accumulator according to claim 14, wherein:

the first flank and the second flank of adjacent threads continue to each other via a bottom of a valley of the internal thread; and

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a radius of the bottom of the valley of the internal thread is approximately 1/10 to 1/3 of a pitch of the threads.

16. (new) An accumulator according to claim 14, wherein:
the internal thread is provided with a stepped portion and a tapered portion.